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CRS Secondhand Smoke Report Further Clouds Health Debate

Tobacco Avocates, Foes Both Invoke Inconclusive Results

By Dan Giosta

Both sides of the contentious smoking debate are using a new report by the Congressional Research Service (CRS) to support their respective positions. The study concluded that the health risks from environmental tobacco smoke (ETS) remain hazy.

ETS

The report, an extensive review of literature on ETS and lung cancer risk, indicates that the danger of developing lung cancer appears to increase as time and quantity of exposure increases.

"While there is evidence of an upward dose response trend, the results are not definitive," the report said. "And even at the greatest integrated exposure levels, the measured risks are still subject to uncertainty."

The report, "Environmental Tobacco Smoke and Lung Cancer Risk," said factors other than ETS proved to be major sources of uncertainty for interpreting results. These confounders included measured risk values and misclassification.

"[T]hese simulated calculations indicate that misclassification can be a potent uncertainty in these ETS studies, and could account for the measured risk values," the report said. "Further research on this issue appears called for."

Previous studies identified current

See CRS Report, page 15

Can Smokers Be Safely Segregated?

A report submitted by Stephen C. Curl, P.E., Hoy R. Bohanon, P.E., Miller T. Jones, and W. David Taylor, CIH, of R.J. Reynolds Co. at ASHRAE's IAQ '95 Conference held in Denver claims that smokers can be safely segregated from their non-smoking co-workers.

The objective of the report, "Effects of Ventilation and Separation on Environmental Tobacco Smoke Concentration," was to test general ventilation and separation as controls for environmental tobacco smoke (ETS) concentrations in a real-world environment. The test was a factorial design with smoking, ventilation, and separation as factors. Cigarette smoking rates were held constant while varying outside air delivery rates for minimum (almost 0 air changes per hour [ACH]) to maximum conditions (greater than 6 ACH).

The test focuses on an office area of approximately 5,500 sq. ft. in a three-story building. The facility was built in the 1950s.

The conclusions of the report, after analyzing chemical measurements, gas-phase measurements, nicotine levels, area vs. personal monitoring, particle measurements, and ultraviolet and fluorescent particulate matter, are that by understanding the relationships between the analyzed factors and by applying separation

and ventilation procedures, exposure to ETS can be virtually eliminated in non-smoking areas. Furthermore, the report said, ETS can be effectively controlled in an open office environment when engineering control and proper separation of smokers and nonsmokers are used.

The report also suggests that additional research is needed to determine optimum ventilation rates and separation distances between smokers and nonsmokers because general ventilation and separation of smokers and nonsmokers was found to be effective in controlling ETS.

But according to an aide to Rep. Henry Waxman, D-Calif., the tobacco industry has made similar claims before and have been proven to use extremely shaky scientific methods.

According to a staff report prepared by the Majority Staff Subcommittee on Health and the Environment, "Environmental Tobacco Smoke Investigation," there are serious questions of scientific fraud with the tobacco industry's scientific research.

These problems include data alteration and fabrication; systematic misreporting of room size; implausibly low measurements of particulates in smoking as non-smoking rooms; and measurements of environmental tobacco smoke under biased conditions.

CRS Report

Continued from page 2

smokers or those who recently quit as never having smoked (smoker misclassification), identified a person as exposed to ETS because a spouse smoked when in reality she was not subject to any exposure (exposure misclassification), and under- or over-estimated the amount of ETS exposure (recall bias), according to the report.

The Occupational Safety and Health Administration (OSHA) may choose to make substantial revisions to its ETS risk assessment before releasing its proposed indoor air quality rule, the report said.

"Independent scientists and tobacco industry researchers and consultants have submitted new data and analyses to the agency for possible inclusion in a revised risk assessment," CRS said.

EPA routinely warns against the dangers of secondhand smoke, claiming it increases risk for cancer, pneumonia and bronchitis. The failure of the report to reach a definitive conclusion has opened the window for both pro-tobacco and anti-tobacco members of Congress to quote from it.

Lawmakers Defend Positions

"This report from CRS — considered a nonpartisan and objective organization — shows that there is absolutely no scientific justification for smoking bans or de-facto bans like the proposed rule coming out of OSHA," Sen. Wendell Ford, D-Ky., said. "These bureaucratic agencies are only pursuing an agenda to punish citizens who exercise the personal right to smoke."

Ford contends the CRS report calls into question claims by the EPA and OSHA on the dangers of secondhand smoke. The report refutes EPA's assertion that there is no safe level of ETS, Ford said.

Rep. Waxman's CRS Report Findings

- Three of the four studies of ETS conducted in the past two years report a statistically significant increase in lung cancer rates at the highest exposure levels use.
- The range of annual lung cancer deaths from exposure to ETS is 470 to 5,500 — virtually the same level as estimated by the EPA.
- The lifetime risk of dying from lung cancer for a nonsmoker married to a smoker is 1 in 500.

Tobacco Institute CRS Report Findings

- Two recent studies did not clarify the existence of a risk;
- ETS risk is very small and not statistically significant at a conventional 95 percent level; and
- If OSHA had conducted an analysis of all the available studies on smoking in the workplace, it would likely have found no increased cancer risk due to ETS.

According to its independent study, CRS finds that the only reasonable chance of risk comes in extreme situations and even those cases are in need of more scientific research, Ford said. He called upon OSHA to reopen hearings on proposed smoking bans.

"There is no scientific evidence for their agenda, and I think it's time to rethink these proposed rules on workplace and public smoking," Ford said. "The proposals will cost billions to implement and will provide little, if any, benefit to the public. For months they have manipulated data to make their case, but now we find that data simply is not there."

Rep. Henry Waxman, D-Calif., a tobacco foe, said the study confirms that ETS is a human carcinogen and indicates that secondhand smoke may cause up to 5,500 lung cancer deaths each year," he said.

Waxman said the threshold model advocated by the tobacco industry and used in the CRS study, determined that ETS will remain a significant source of lung cancer

in nonsmokers, causing between 440 and 530 lung cancer deaths each year.

Advocacy Groups Respond

The CRS report noted areas where further research might be important and some uncertainties in making precise estimates of relative risk and number of annual deaths. Action on Smoking and Health (ASH) determined the report had reached

the conclusion that secondhand tobacco smoke causes high levels of cancers and cancer deaths in nonsmokers. The group said the CRS conclusions appear to justify regulation of secondhand smoke under generally accepted governmental regulatory standards.

"Although the CRS report is flawed in many ways — including the unwarranted assumption that there is a threshold level — it nevertheless demonstrates that even under the assumptions most favorable to the tobacco industry, tobacco must be regulated like any other proven human carcinogen," said John Banzhaf, ASH's executive director.

The anti-smoking group says that despite its faults, the CRS report did not refute the basic conclusion for all previous studies: tobacco smoke causes cancer in nonsmokers.

The Tobacco Institute said the report raises serious issues about reports by EPA and OSHA that advocate antismoking measures. "CRS repeatedly notes instances of substantial uncertainties and unverified assumptions that call into question those agencies' handling of ETS issues," spokesman Tom Lauria said.

Newslines

Continued from page 11

developed when the dysfunctional electro-static system caused excessive dripping, generating drip pan overflow, which posed a serious threat to many of the articles in the birthplace that are irreplaceable antiques.

"I kept thinking that if the pan overflowed, it would cause structural damage," said Daron Dyer, who at the time was a service technician for Allied Plumbing Heating & Air Conditioning, Placentia,

Calif., who was called in to investigate the malfunctioning cooling system.

Dyer found that lack of airflow was causing the coil, located in the attic of the historic building, to ice up, and there was evidence of water damage around the drain pan under the unit. The solution to the problem was to install a new high-efficiency air cleaning system that improved the air quality immediately.

The new system was able to lessen the amount of interior dust, reducing sinus and headache discomfort, as well as eliminating the drip pan overflow.

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